



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/755,544

01/12/2004

Marc-Andre Poupart

13/121

1310

28513

7590

10/20/2005

EXAMINER

BARKER, MICHAEL P

MICHAEL P. MORRIS

BOEHRINGER INGELHEIM CORPORATION

900 RIDGEBURY RD

P O BOX 368

RIDGEFIELD, CT 06877-0368

ART UNIT

PAPER NUMBER

1626

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/755,544	Applicant(s) POUPART ET AL.	
	Examiner Michael P. Barker	Art Unit 1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-41, 43 and 44 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) Claims withdrawn from consideration are 1-27 (in part); 33-41 (in part); 43-44 (in part); 28-32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

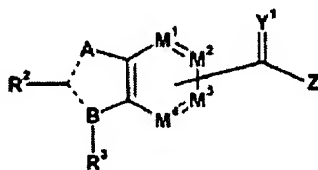
- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/2/04 and 8/12/05</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

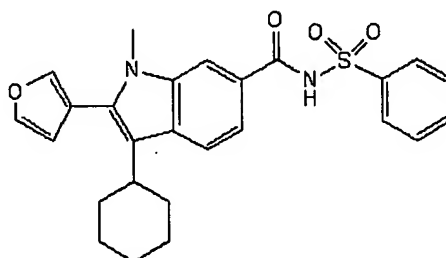
**Claims 1-41 and 43-44** are pending in the instant application. Furthermore, the addition of **Claims 43 and 44** as well as the cancellation of **Claim 42** is acknowledged, and **Group I** is hereby expanded to include **Claims 43 and 44** (in part).

#### *Response to Restriction*

Applicants' election without traverse of **Group I, Claims 1-27 and 33-41** (in part), drawn



to compounds represented by Formula (I), (I), and specific compound



of Example 114 of Table 1, , classified in class 548, subclass 470, depicted on page 52 of the specification is acknowledged.

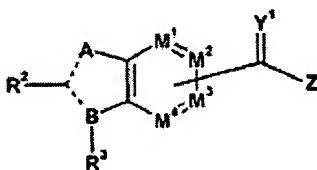
The inventions of Groups I and II are independent and distinct because there is no patentable coaction between the Groups and a reference anticipating one member will not render another obvious. Each group is directed to art recognized as divergent in subject matter requiring different search strategies for each group. Moreover, the Examiner must perform a commercial database search on the subject matter of each group in addition to a paper search, which is burdensome to the Examiner. Thus, the restriction set forth July 12, 2005 is deemed proper.

Art Unit: 1626

As stated in the restriction requirement, the Office will review the claims and disclosure to determine the scope of the independent invention encompassing the elected compound and examination will then proceed on the elected compound and the entire scope of the invention encompassing the elected compound as defined by common classification.

Regarding requests for rejoinder, as stated in the restriction requirement, rejoinder will be permitted when a product claim is found allowable and then the withdrawn process or methods claims which depend from or otherwise include all limitations of an allowed product claim will be rejoined.

*Scope of the Invention of the Elected and Examined Subject Matter is as Follows:*



Compounds of Formula (I), <sup>(1)</sup>, depicted in Claim 1, wherein:

- B is -N- and A is =CR<sup>1</sup>; or
- B is =C- and A is NR<sup>1</sup>;
- R<sup>1</sup> is as defined, *except* where R<sup>11</sup> and R<sup>12</sup> are (C<sub>1-6</sub>)alkyl-Het, where Het is a heterocyclic group other than a 4- or 5-membered nitrogen-containing heterocyclic group and *except* where both R<sup>12</sup> groups are covalently bonded together and to the nitrogen to which they are both attached to form other than a 5-membered saturated heterocyclic group;
- the group -C(=Y<sup>1</sup>)-Z is covalently linked to either M<sup>2</sup> or M<sup>3</sup>,
- M<sup>1</sup> is as defined;
- M<sup>2</sup> or M<sup>3</sup>, when not linked to -C(=Y<sup>1</sup>)-Z, is as defined;

Art Unit: 1626

- $M^4$  is as defined;
- $Y^1$  is as defined;
- $Z$  is as defined;
- $R^2$  is as defined, *except* where **Het** is a heterocyclic group other than a 4- or 5-membered nitrogen-containing heterocyclic group;
- $R^3$  is as defined, *except* where **HCy** is a heterocyclic group other than a 4- or 5-membered nitrogen-containing heterocyclic group;
- $R^{4a}$ ,  $R^{4b}$ , and  $R^5$  each are as defined;
- $R^{60}$  is as defined, *except* where any of the substituents are heterocyclic groups other than 4- or 5-membered nitrogen-containing heterocyclic groups and *except* where **HCy** is a heterocyclic group other than a 4- or 5-membered nitrogen-containing heterocyclic group;
- $R^{150}$  is as defined, *except* where any of the substituents are heterocyclic groups other than 4- or 5-membered nitrogen-containing heterocyclic groups and *except* where **HCy** is a heterocyclic group other than a 4- or 5-membered nitrogen-containing heterocyclic group;
- $R^{160}$  is as defined, *except* where any of the substituents are heterocyclic groups other than 4- or 5-membered nitrogen-containing heterocyclic groups and *except* where both  $R^{162}$  groups are covalently bonded together and to the nitrogen to which they are both attached to form other than a 5-membered saturated heterocyclic group;
- $R^O$  and  $R^C$  are as defined, *except* where **Het** is a heterocyclic group other than a 4- or 5-membered nitrogen-containing heterocyclic group;

Art Unit: 1626

- $R^{N1}$  is as defined, *except* where **Het** is a heterocyclic group other than a 4- or 5-membered nitrogen-containing heterocyclic group;
- $R^{N2}$ ,  $R^{N3}$ , and  $R^{N4}$  are as defined, *except* where  $R^{N3}$  and  $R^{N1}$  or  $R^{N2}$  and  $R^{N1}$  are covalently bonded together to form a heterocyclic group other than a 4- to 5-membered heterocyclic nitrogen-containing group;

or a salt thereof.

The scope of Applicant's independent invention, set forth in Group I, encompasses all compounds within the scope of the claims of Group I which fall into the same class as the selected compound. All compounds falling outside the class of the selected compound are heretofore directed to nonelected subject matter and are withdrawn from consideration under 35 U.S.C. 121 and 37 C.F.R. 1.142(b).

Regarding the scope of compounds set forth above, the compounds are free of prior art and are drawn to allowable subject matter. Amendments to the claims in order to conform with the scope set forth above and cancellation of nonelected subject matter will put Applicant's claimed invention in condition for allowance. Applicant has the right to file divisional applications on the remaining subject matter.

***Scope of the Nonelected Subject Matter:***

As a result of the election and the corresponding scope of the invention identified *supra*, the remaining subject matter of **Claims 1-27, 33-41, and 43-44** which is not drawn to the above elected invention as well as claims **28-32** are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions. The remaining compounds which are not within the elected invention, which are independent and distinct from the elected invention

and do not have unity with the elected compound and are therefore withdrawn by means of a restriction requirement.

The abovementioned withdrawn compounds which are withdrawn from consideration as being nonelected subject matter differ materially in structure and composition from the compounds of the elected invention. The withdrawn compounds contain varying functional groups which differ from those of the elected invention, such as 6-, 7-, and 8-membered heterocyclic groups, etc. which are recognized to differ chemically in both structure and function.

This recognized chemical diversity of the functional groups can be seen by the various classification of these functional groups in the U.S. classification system, i.e. class 540 7-membered or larger nitrogen-containing heterocyclic rings; class 544 6-membered heterocyclic rings with at least two heteroatoms one of which is nitrogen, class 546 6-membered heterocyclic rings with one nitrogen as the only heteroatom, etc.

Therefore, the compounds which are withdrawn from consideration as being nonelected subject matter differ materially in structure, function, and composition and have been restricted properly as a reference that anticipated, but the elected subject matter would not even render obvious the nonelected subject matter. The fields of search required for the nonelected versus the elected compounds are not coextensive.

#### ***Priority***

Applicant's claim for domestic priority under 35 U.S. 119(e) is acknowledged. The provisional application 60/441,674 upon which priority is claimed provides adequate support under 35 U.S.C. 112 for **Claims 1-41** and **Claims 43-44** of this application. Therefore, the

Art Unit: 1626

priority date given for this application is January 22, 2003, from the aforementioned provisional application.

### ***Information Disclosure Statement***

Applicant's information disclosure statements (IDS), filed on September 2, 2004 and August 12, 2005, have been considered. Please refer to Applicant's copies of the 1449 submitted herewith.

### ***References Cited***

If a copy of a provisional application listed on the bottom portion of the accompanying Notice of References Cited (PTO-892) form is not included with this Office action and the PTO-892 has been annotated to indicate the copy was not readily available, the copy could not be readily obtained when the Office action was mailed. Should Applicant desire a copy of such a provisional application, Applicant should promptly request the copy from the Office of Public Records (OPR) in accordance with 37 CFR 1.14(a)(1)(iv), paying the required fee under 37 CFR 1.19(b)(1). If a copy is ordered from OPR, the shortened statutory period for reply to this Office action will not be reset under MPEP § 710.06 unless Applicant can demonstrate a substantial delay by the Office in fulfilling the order for the copy of the provisional application. Where the applicant has been notified on the PTO-892 that a copy of the provisional application is not readily available, the provision of MPEP § 707.05(a) that a copy of the cited reference will be automatically furnished without charge does not apply.

### ***Claim Objections***

**Claims 1-27** (in part), **33-41** (in part), and **43-44** (in part), as well as **Claims 28-32** are objected to for containing nonelected subject matter.



### *Telephone Inquiry*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Barker whose telephone number is (571) 272-4341. The examiner can normally be reached on Monday-Friday 8:00 AM- 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Joseph K. McKane, can be reached at (571) 272-0699. The unofficial fax phone for this group are (571) 273-8300.

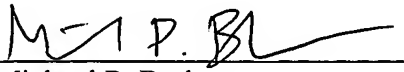
When filing a FAX in Technology Center 1600, please indicate the Header (upper right) "Official" for papers that are to be entered into the file, and " Unofficial" for draft documents and other communications with the PTO that are not for entry into the file of the application. This will expedite processing of your papers.

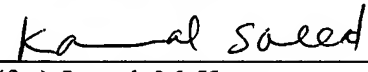
Communication via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by applicant and should be addressed to [joseph.mckane@uspto.gov]. All Internet e-mail communications will be made of record in the application file. PTO employees will not communicate with applicant via Internet e-mail where sensitive data will be exchanged or where there exists a possibility that sensitive data could be identified unless there is of record an express waiver of the confidentiality requirements under 35 U.S.C. 122 by the applicant. See the Interim Internet Usage Policy published by the Patent and Trademark Office Official Gazette on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

Art Unit: 1626

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is viable through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
\_\_\_\_\_  
Michael P. Barker  
Patent Examiner, AU 1626  
Technology Center 1600

**KAMAL A. SAEED, PH.D.**  
**PRIMARY EXAMINER**  
  
\_\_\_\_\_  
(for) Joseph McKane  
Supervisory Patent Examiner, AU 1626  
Technology Center 1600

Continuation of Disposition of Claims: Claims withdrawn from consideration are 1-27 (in part); 33-41 (in part); 43-44 (in part); 28-32.